

REMARKS

Applicants hereby traverse the rejections and objections and request reconsideration and withdrawal in light of the remarks contained herein. Claims 1-34 are pending in this application.

Rejections under 35 U.S.C. § 102

Claims 1, 22 and 30 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,746,879 to Ma et al. (hereinafter Ma). Applicants traverse the rejections and assert that the claims are allowable for, at least, the reasons stated below.

It is well settled that to anticipate a claim, the reference must teach every element of the claim, see M.P.E.P. §2131. Moreover, in order for a prior art reference to be anticipatory under 35 U.S.C. § 102 with respect to a claim, “[t]he elements must be arranged as required by the claim,” see M.P.E.P. § 2131, citing *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). Furthermore, in order for a prior art reference to be anticipatory under 35 U.S.C. § 102 with respect to a claim, “[t]he identical invention must be shown in as complete detail as is contained in the . . . claim,” see M.P.E.P. § 2131, citing *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913 (Fed. Cir. 1989). Applicants respectfully assert that the rejection does not satisfy these requirements.

Claim 1 defines, in part, “calibrating one or more voltage controlled oscillators (VCOs) for use as ammeters.” Applicants assert that Ma does not teach at least this element of claim 1. Ma does not teach the use of a VCO as any type of power meter – either ammeter or voltmeter. Instead, Ma discloses calibrating offset voltages only for purposes of temperature-compensation in order to produce a stable, unchanging output frequency, and use of a “conventional 5½ digit voltmeter” to measure “output of the temperature sensor” or RF probe during “testing and calibration.” Ma, column 8, lines 21-37; column 6, lines 38-47 and column 7, lines 48-51. Applicants note that Ma’s VCO acts as a temperature-compensated oscillator (TCO) and is powered by regulated voltage. Ma, column 3, lines 22-33, and column 9, lines 22-28. Thus, Ma does not teach or suggest the use of VCOs as ammeters.

Claim 1 also defines, in part, “calibrating a calibration current source, wherein the calibration current source draws current through an inherent resistance” and “calculating the inherent resistance.” Applicants assert that Ma does not teach at least this element of claim 1. In contrast, Ma teaches calibrating the temperature-dependence of the voltage inputs necessary for a VCO to maintain the desired frequency, and then storing compensating voltage values in an EEPROM. Ma, column 7, lines 39-43 and column 10, lines 8-14. Ma uses a voltage regulator, a temperature probe, a transducer, and an analog-to-digital converter (ADC) to stabilize frequency, but does not mention or imply calibrating any current or calculating any inherent resistance. Ma, column 4, line 66 to column 5, line 6, and column 7, lines 64-68. Ma mentions resistance only for the purposes of impedance-matching the test equipment. Ma, column 7, lines 4-13 and lines 48-56. Therefore, Ma does not teach or suggest either calibrating a calibration current source, wherein the calibration current source draws current through an inherent resistance, or calculating the inherent resistance.

Further, claim 1 defines, in part, “calculating the processor power demand using a voltage that is measured across the inherent resistance.” Applicants assert that Ma does not teach at least this element of claim 1. The only calculations Ma discloses are calculating the “temperature versus frequency curve” of a VCO. Ma, column 4, lines 4-7, and column 10, lines 1-7. Therefore, Ma does not teach or suggest calculating the processor power demand using a voltage that is measured across the inherent resistance.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 102(b) rejection of claim 1 and assert that claim 1 is allowable for, at least, the reasons stated above.

Claim 22 defines, in part, “code for calibrating one or more voltage controlled oscillators (VCOs) for use as ammeters.” Applicants assert that Ma does not teach at least this element of claim 22. Ma does not teach the use of a VCO as any type of power meter – either ammeter or voltmeter. Instead, Ma discloses calibrating offset voltages only for purposes of temperature-compensation in order to produce a stable, unchanging output frequency, and use of a “conventional 5½ digit voltmeter” to measure “output of the temperature sensor” or RF probe during “testing and calibration.” Ma, column 8, lines 21-37; column 6, lines 38-47 and column 7, lines 48-51. Applicants note that Ma’s VCO acts as a

temperature-compensated oscillator (TCO) and is powered by regulated voltage. Ma, column 3, lines 22-33, and column 9, lines 22-28. Thus, Ma does not teach or suggest code for calibrating VCOs as ammeters.

Claim 22 also defines, in part, “code for calibrating a calibration current source, wherein the calibration current source draws current through an inherent resistance” and “code for calculating the inherent resistance.” Applicants assert that Ma does not teach at least this element of claim 22. In contrast, Ma teaches calibrating the temperature-dependence of the voltage inputs necessary for a VCO to maintain the desired frequency, and then storing compensating voltage values in an EEPROM. Ma, column 7, lines 39-43 and column 10, lines 8-14. Ma uses a voltage regulator, a temperature probe, a transducer, and an analog-to-digital converter (ADC) to stabilize frequency, but does not mention or imply calibrating any current or calculating any inherent resistance. Ma, column 4, line 66 to column 5, line 6, and column 7, lines 64-68. Ma mentions resistance only for the purposes of impedance-matching the test equipment. Ma, column 7, lines 4-13 and lines 48-56. Therefore, Ma does not teach or suggest code for calibrating a calibration current source, wherein the calibration current source draws current through an inherent resistance, or code for calculating the inherent resistance.

Further, claim 22 defines, in part, “code for calculating the processor power demand using a voltage that is measured across the inherent resistance.” Applicants assert that Ma does not teach at least this element of claim 22. The only calculations Ma discloses are calculating the “temperature versus frequency curve” of a VCO. Ma, column 4, lines 4-7, and column 10, lines 1-7. Therefore, Ma does not teach or suggest code for calculating the processor power demand using a voltage that is measured across the inherent resistance.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 102(b) rejection of claim 22 and assert that claim 22 is allowable for, at least, the reasons stated above.

Claim 30 defines, in part, “means for calibrating one or more voltage controlled oscillators (VCOs) for use as ammeters.” Applicants assert that Ma does not teach at least this element of claim 30. Ma does not teach the use of a VCO as any type of power meter –

either ammeter or voltmeter. Instead, Ma discloses calibrating offset voltages only for purposes of temperature-compensation in order to produce a stable, unchanging output frequency, and use of a “conventional 5½ digit voltmeter” to measure “output of the temperature sensor” or RF probe during “testing and calibration.” Ma, column 8, lines 21-37; column 6, lines 38-47 and column 7, lines 48-51. Applicants note that Ma’s VCO acts as a temperature-compensated oscillator (TCO) and is powered by regulated voltage. Ma, column 3, lines 22-33, and column 9, lines 22-28. Thus, Ma does not teach or suggest means for calibrating VCOs as ammeters.

Claim 30 also defines, in part, “means for calibrating a calibration current source, wherein the calibration current source draws current through an inherent resistance” and “means for calculating the inherent resistance.” Applicants assert that Ma does not teach at least this element of claim 30. In contrast, Ma teaches calibrating the temperature-dependence of the voltage inputs necessary for a VCO to maintain the desired frequency, and then storing compensating voltage values in an EEPROM. Ma, column 7, lines 39-43 and column 10, lines 8-14. Ma uses a voltage regulator, a temperature probe, a transducer, and an analog-to-digital converter (ADC) to stabilize frequency, but does not mention or imply calibrating any current or calculating any inherent resistance. Ma, column 4, line 66 to column 5, line 6, and column 7, lines 64-68. Ma mentions resistance only for the purposes of impedance-matching the test equipment. Ma, column 7, lines 4-13 and lines 48-56. Therefore, Ma does not teach or suggest means for calibrating a calibration current source, wherein the calibration current source draws current through an inherent resistance, or means for calculating the inherent resistance.

Further, claim 30 defines, in part, “means for calculating the processor power demand using a voltage that is measured across the inherent resistance.” Applicants assert that Ma does not teach at least this element of claim 30. The only calculations Ma discloses are calculating the “temperature versus frequency curve” of a VCO. Ma, column 4, lines 4-7, and column 10, lines 1-7. Therefore, Ma does not teach or suggest means for calculating the processor power demand using a voltage that is measured across the inherent resistance.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 102(b) rejection of claim 30 and assert that claim 30 is allowable for, at least, the reasons stated above.

Rejections under 35 U.S.C. § 103

Claims 2-4, 14-17, 23, 24 and 31 are rejected under 35 U.S.C. § 103(a) for obviousness.

In order to establish obviousness, three criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the references or combine reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art cited must teach or suggest all the claim limitations. MPEP §2143.03.

Without conceding either of the first two criteria, Applicants assert that each of the Examiner's rejections fails to satisfy the third criteria.

Claims 2, 17, 23 and 31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ma in view of U.S. Patent No. 5,179,358 to Martin (hereinafter Martin). Applicants traverse the rejections and assert that the claims are allowable for, at least, the reason stated below.

Base claims 1, 22 and 30 are defined as described above. Ma does not disclose these limitations, as discussed above. Martin is not relied upon in the Office Action as disclosing these limitations. Therefore, the combination of references does not teach all elements of the claimed invention.

Claims 2, 17, 23 and 31 depend directly from base claims 1, 22 and 30, respectively, and thus inherit all limitations of their respective base claims. Each of the claims 2, 17, 23 and 31 sets forth features and limitations not recited by the combination of Ma and Martin. Thus, the Applicants respectfully assert that for the above reason, claims 2, 17, 23 and 31 are patentable over the 35 U.S.C. § 103(a) rejection of record.

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Ma in view of Martin as applied to claims 1 and 2, and further in view of U.S. Patent No. 5,367,202 to Yee (hereinafter Yee). Applicants traverse the rejection and assert that the claims are allowable for, at least, the reason stated below.

Base claim 1 is defined as described above. Ma does not disclose these limitations, as discussed above. Neither Martin nor Yee is relied upon in the Office Action as disclosing these limitations. Therefore, the combination of references does not teach all elements of the claimed invention.

Claim 3 depends from base claim 1, and thus inherits all limitations of claim 1. Claim 3 sets forth features and limitations not recited by the combination of Ma, Martin and Yee. Thus, the Applicants respectfully assert that for the above reason, claim 3 is patentable over the 35 U.S.C. § 103(a) rejection of record.

Claims 4, 15, 16 and 24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ma in view of Martin as applied to claims 1, 2, 22 and 23, and further in view of U.S. Patent No. 4,962,380 to Meadows (hereinafter Meadows). Applicants traverse the rejection and assert that the claims are allowable for, at least, the reasoning stated below.

Base claims 1 and 22 are defined as described above. Ma does not disclose these limitations, as discussed above. Neither Martin nor Meadows is relied upon in the Office Action as disclosing these limitations. Therefore, the combination of references does not teach all elements of the claimed invention.

Claims 4, 15, 16 and 24 depend directly from base claims 1 and 22, respectively, and thus inherit all limitations of their respective base claims. Each of the claims 4, 15, 16 and 24 sets forth features and limitations not recited by the combination of Ma, Martin and Meadows. Thus, the Applicants respectfully assert that for the above reason, claims 4, 15, 16 and 24 are patentable over the 35 U.S.C. § 103(a) rejection of record.

Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Ma in view of U.S. Patent No. 4,962,380 to Spears (hereinafter Spears). Applicants traverse the rejection and assert that the claims are allowable for, at least, the reasoning stated below.

Base claim 1 is defined as described above. Ma does not disclose these limitations, as discussed above. Spears is not relied upon in the Office Action as disclosing these limitations. Therefore, the combination of references does not teach all elements of the claimed invention.

Claim 14 depends from base claim 1, and thus inherits all limitations of claim 1. Claim 3 sets forth features and limitations not recited by the combination of Ma and Spears. Thus, the Applicants respectfully assert that for the above reason, claim 14 is patentable over the 35 U.S.C. § 103(a) rejection of record.

Conclusion

Applicants thank the Examiner for the indication of allowability for claims 5-13, 18-21, 25-29 and 32-34.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

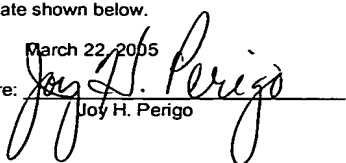
Applicants believe no fee is due with this response. However, if a fee is due, please charge Deposit Account No. 08-2025, under Order No. 200208728-1 from which the undersigned is authorized to draw.

Dated: March 22, 2005

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EV482745724US, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: March 22, 2005

Signature:


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